AIRS Data Assimilation Workshop

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Before starting direct assimilation and/or T(p), q(p) retrievals

1. Know the characteristics of your forward algorithm

2. Know the characteristics of the background

3. Know the characteristics of your input (L1b)

Radiometric
Characterization
Spectral Characterization
Noise Characterization

+ Cloud Residual Effects

Early Assimilation Schedule

L1a software upgrade at L+2 months

Instrument state and data become stable at Launch + 3 months
(Data usable for flowtest and first look analysis)

Initial Radiance Evaluation L+ 2 month - L + 4 months
(Wednesday morning 7 Nov 2001 presentations)
Useful Data Assimilation can start at L+5 months, if radiances pass initial test.

Define Requirements for L1b software patches (if any)
need to be formulated at Launch + 5 months

First post-launch L1b software redelivery at Launch+7 months
Minimize L1b changes afterwards.

Early IR Radiance (L1b) Evaluation

More than 30 tasks have been proposed by various science team members in support of this analysis

Results to be posted at team members websites.

Settled by Launch + 3 months:

1. The initial radiometric calibration verification at a 0.2K level using the tropical ocean night granules and the 2616cm-1 super window channel.

2. The initial spectral calibration verification at a 1% of D_nu level using the tropical ocean night granules.

3. Potential scan angle asymmetries at the fraction of a degree level using left/right bias from a few dozen tropical ocean granules.

UKMeto Status
ECMWF Status
NCEP Status
DAO Status

Forward Model
NOAA Pipeline
Clear filtered bias and Cloud clearing bias

Integrated microwave/ir assimilation